

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:	)	
	)	
François COTTARD et al.	)	Group Art Unit: 1751
	)	
Application No.: 10/728,954	)	Examiner: Eisa B. Elhilo
	)	
Filed: December 8, 2003	)	
	)	
For: COMPOSITION FOR THE	)	Confirmation No.: 9017
OXIDATION DYEING OF	)	
KERATIN FIBERS, COMPRISING	)	
AT LEAST ONE OXIDATION DYE,	)	
AT LEAST ONE ASSOCIATIVE	)	
POLYMER, AND AT LEAST ONE	)	
AMINOSILICONE	)	

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

**DECLARATION UNDER 37 C.F.R. § 1.132**

I, Marie-Pascale AUDOUSSET, do hereby make the following declaration:

1. I am a French citizen, residing at 1, allée Louis Jouvét, 92600 ASNIERES SUR SEINE, FRANCE.
2. I have been awarded a degree in Chemical Engineering from the École Nationale Supérieure de Chimie de Paris, and am a Doctor in Organic Chemistry.
3. I am in charge of a Hair Color Laboratory in L'Oréal and have experience working with oxidation dye composition since 1989.
4. I understand the rejections made in the Office Action of June 23, 2006, in Application No. 10/728,954.

5. Given my education and experience, particularly in the area of oxidation hair dyeing, I consider myself able to provide the following testimony based on experiments conducted by me or under my supervision:

### **COMPARATIVE EXPERIMENTS**

#### **I. Preparation of the Compositions**

6. The following compositions were prepared: Inventive Composition A was prepared according to the present claims and comprised, among other things, a cationic associative polymer (quaternized hydroxyethylcellulose modified with groups comprising a fatty chain). Comparative Composition B was prepared identical to composition A except that it comprised a non-ionic associative polymer (alkyl hydroxyethyl cellulose) according to Cottard et al. (U.S. Patent Application Publication No. 2001/0023515 A1) instead of the at least one cationic associative polymer as claimed. See Table I.

**TABLE I**

The following compositions A and B were prepared (amounts given in percentages by weight):

<b>Ingredients:</b>	<b>A - Inventive</b>	<b>B - Comparative</b>
Oxyethylenated (21 EO) stearyl alcohol	1.75	1.75
Oxyethylenated (2 EO) stearyl alcohol	4.5	4.5
Oleic acid	2.6	2.6
Propyleneglycol	2	2
Carboxyvinyl polymer (sold by Noveon under the name Carbopol 980)	0.4	0.4
Polydimethylsiloxane with aminoethyl iminobutyl groups and alpha-omega silanols, as a 60% cationic aqueous emulsion sold by Dow Corning under the name Dow Corning 2-8299 Cationic Emulsion	5.22	5.22
Mixture of linear alcohols in C <sub>18</sub> to C <sub>24</sub> (C <sub>18</sub> /C <sub>20</sub> /C <sub>22</sub> /C <sub>24</sub> - 7/57/30/6) amount of alcohol higher than 95%	3	3

<b>Ingredients:</b>	<b>A - Inventive</b>	<b>B - Comparative</b>
Hydroxypropylmethylcellulose	0.2	0.2
Hydroxyethylcellulose quaternized with lauryl di-methyl ammonium substituted epoxide (sold by Amerchol under the name Quatrisoft LM 200)	0.2	-
Cetyl hydroxyethylcellulose (sold by Hercules under the name Natrosol Plus Grade 330 CS)	-	0.2
1-methyl-2-hydroxy-4-beta-hydroxyethylamino-benzene	0.8	0.8
1-hydroxy-4-amino-benzene	1.2	1.2
1-hydroxy-3-amino-benzene	0.2	0.2
1,4-diamino-benzene	0.2	0.2
1,3-dihydroxybenzene (resorcinol)	0.1	0.1
Perfume	0.5	0.5
Mono-tertiobutyl hydroquinone	0.3	0.3
Coco acid monoisopropanolamide	3	3
Ethylene diamine tetracetic acid	0.2	0.2
Sodium metabisulfite	0.71	0.71
Monoethanolamine	1	1
Aqueous ammonia containing 20% NH <sub>3</sub>	11	11
Water	qsp 100%	qsp 100%

## **II. Testing Procedure**

7. Each composition was mixed, at the time of use, with an oxidizing composition in the form of an emulsion comprising 7.5 weight % of hydrogen peroxide, in an amount of 1 part of dye composition per 1.5 parts of oxidizing composition.

8. The mixture obtained was applied to locks of permed hair containing 90% white hair, and then left in for 30 minutes.

9. The locks were then rinsed with water, washed with standard shampoo, and again rinsed with water, and then dried.

## **III. Color Determination**

10. The color of the hair was determined by using the L\*a\*b\* system, with a SF600X Datacolor® colorimeter.

11. According to this system, L\* indicates the lightness of the color of the hair. The chromaticity coordinates are expressed by the parameters a\* and b\*, a\* indicating the axis of red / green shades and b\* the axis of yellow / blue shades.

12. The chromaticity was calculated according to the following formula:

$$C^* = \sqrt{(a^*)^2 + (b^*)^2}$$

The higher the value of C\*, the more chromatic is the color.

#### IV. Results

13. The results are given in Table II below:

**TABLE II**

	<b>Chromaticity</b>
Composition A (inventive)	24.72
Composition B (comparative)	20.38

#### V. Analysis of Results

14. These results show that the composition according to the present claims (Inventive Composition A) provides a chromaticity that is over 20% stronger than Comparative Composition B.

15. It is clear that Inventive Composition A results in more chromatic colors than Comparative Composition B.

16. Based on my education and experience, these results are unexpected given that it was not known that the use of a cationic associative polymer as claimed would significantly improve the chromaticity of the hair.

17. I further declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true, and further, that these statements were made with the knowledge that wilful false

statements and the like so made are punishable by fine of imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such wilful false statements may jeopardize the validity of the application or any patent issuing thereon.

Dated:

By: \_\_\_\_\_  
Marie-Pascale AUDOUSSET